

REMARKS

Claims 1, 3-6, 10-16, 18-24, 26-45, 47-53, 55 and 59 are now pending.

Claim 1 has been amended to specifically recite that the POSS has at least one radiation curable group.

Claims 2, 7-9, 17, 25, 46, 54 and 56-58 are cancelled.

Claims 3, 4 and 22 are amended to depend from claim 1.

Claim 59 is newly added. No new matter is entered as a result of the inclusion of claim 59.

Claims 13, 14, 26-45, 47-53 and 55 are in condition for allowance for the reasons of record.

Rejections Under 35 U.S.C. 103

Claims 1-6, 10-12, 15-18, 23, 24 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figov (USP 5,623,001) in view of Nguyen et al. (USP 6,270,561).

Claims 2, 17 and 46 are cancelled and all rejections directed thereto are moot.

Figov is cited as teaching UV curable ink jet inks. Example IV of Figov is particularly cited as teaching, among other things, a pigment with reference to the naphthol blue black. Applicants respectfully submit that naphthol blue black is not a pigment but is instead a solubilized dye comprising two

sodium sulfonate groups to make the compound water soluble. Submitted herewith is an Information Disclosure Statement with a copy of the MSDS for naphthol blue black dye indicating that the dye has moderate solubility in water.

The Office correctly notes that Figov does not teach the present POSS. Nguyen is cited for teaching the use of POSS in ink vehicles. Even if the POSS compounds of Nguyen are included in the ink-jet composition of Figov the invention of claim 1 is not met. The combination still lacks the teaching of a pigment.

Furthermore, Nguyen et al. discloses only silsesquioxanes or oligimers and polymers that contain silsesquioxane moieties. Nguyen et al. does not teach radiation curable polyhedral oligomeric silsesquioxanes (POSS) as set forth in amended claim 1 and in claims 3-6, 10-12, 15, 16, 18, 23 and 24 by dependence from claim 1.

The rejection of claims 1, 2-6, 10-12, 15, 16, 18, 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Figov (USP 5,623,001) in view of Nguyen et al. (USP 6,270,561) is improper due to the failure of the combination of references to recite the claimed invention. The combination of references lacks, at least, teachings of a pigment and teachings of radiation curable polyhedral oligomeric silsesquioxanes. Withdrawal of the rejection is proper and respectfully requested.

Claims 1-6, 10-12, 15-18, 23, 24 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantell et al. (USP 5,641,346) in view of Nguyen et al. (USP 6,270,561).

Claims 2, 17 and 46 are cancelled and all rejections directed thereto are moot.

Mantell et al. is cited as teaching an ink jet recording process including many of the components of the claimed invention. The Office correctly notes that Mantell et al. does not teach the present POSS. Nguyen is cited for teaching the use of POSS in ink vehicles.

Nguyen et al. discloses only silsesquioxanes or oligimers and polymers that contain silsesquioxane moieties. Nguyen et al. does not teach radiation curable polyhedral oligomeric silsesquioxanes (POSS) as set forth in amended claim 1 and in claims 3-6, 10-12, 15, 16, 18, 23 and 24 by dependence from claim 1. Even if one did incorporate the silsesquioxane moieties of Nguyen et al. into the ink jet ink recording process of Mantell et al. one would still lack the radiation curable polyhedral oligomeric silsesquioxanes recited in claim 1 and in claims 3-6, 10-12, 15, 16, 18, 23 and 24 by dependence from claim 1.

The rejection of Claims 1, 3-6, 10-12, 15, 16, 18, 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over Mantell et al. (USP 5,641,346) in view of Nguyen et al. (USP 6,270,561) is improper due to a failure of the combination of references to recite, at least, radiation curable polyhedral oligomeric silsesquioxanes. Withdrawal of the rejection is proper and respectfully requested.

Claims 19-21, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figov (USP 5,623,001) or Mantell et al. (USP 5,641,346) in view of Nguyen et al. (USP 6,270,561) as applied to claims 1 and 46 above and further in view of Kamata et al. (USP 6,110,987).

Claims 57 and 58 have been cancelled. All rejections directed thereto are moot.

Claims 19-21 ultimately depend from claim 1. As set forth supra claim 1 has been amended to recite radiation curable polyhedral oligomeric silsesquioxanes. The same limitation is present in claims 19-21 by dependence from claim 1.

Both Figov in view of Nguyen et al. and Mantell et al. in view of Nguyen et al. fail to obviate claim 1 for the reasons set forth supra. Specifically Nguyen et al. fails to recite

radiation curable polyhedral oligomeric silsesquioxanes as set forth in amended claim 1 and claims 19-21 by dependence.

The Office correctly notes that Both Figov in view of Nguyen et al. and Mantell et al. in view of Nguyen et al. fail to state the use of an antioxidant or a conductive material. Kamata is cited as disclosing those teachings which are otherwise lacking in the cited art. Even with the inclusion of Kamata there is no teaching of radiation curable polyhedral oligomeric silsesquioxanes as set forth in amended claim 1 and in claims 19-21 by dependence therefrom.

The rejection of claims 19-21 under 35 U.S.C. 103(a) as being unpatentable over Figov (USP 5,623,001) or Mantell et al. (USP 5,641,346) in view of Nguyen et al. (USP 6,270,561) as applied to claims 1 and 46 above and further in view of Kamata et al. (USP 6,110,987) is improper due to the failure of the combined references to teach, at least, radiation curable polyhedral oligomeric silsesquioxanes. Withdrawal of the rejection is proper and respectfully requested.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Figov (USP 5,623,001) or Mantell et al. (USP 5,641,346) in view of Nguyen et al. (USP 6,270,561) and further in view of Nguyen et al. (USP 6,664,024).

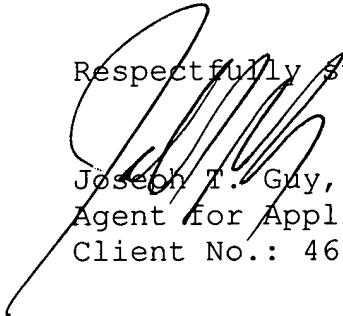
Claim 22 has been amended to depend from claim 1. As set forth supra Figov or Mantell et al. in view of Nguyen et al. '561 fails to teach, at least, radiation curable polyhedral oligomeric silsesquioxanes.

As properly noted by the Office neither Figov and Nguyen et al. '561 nor Mantell et al. and Nguyen et al. '561 recite the dendrimers recited in claim 22. Nguyen et al. '024 is recited as providing those teachings which are otherwise lacking. Even with Nguyen et al. '024 the combination of cited references still fails to recite radiation curable polyhedral oligomeric silsesquioxanes and therefore fails to obviate the claimed invention.

The rejection of claim 22 under 35 U.S.C. 103(a) as being unpatentable over Figov (USP 5,623,001) or Mantell et al. (USP 5,641,346) in view of Nguyen et al. (USP 6,270,561) and further in view of Nguyen et al. (USP 6,664,024) is improper due to the failure of the combined references to recite, at least, radiation curable polyhedral oligomeric silsesquioxanes. Withdrawal of the rejection is proper and respectfully requested.

CONCLUSIONS

Claims 1, 3-6, 10-16, 18-24, 26-45, 47-53, 55 and 59 are now pending in the present application. All rejections have been traversed or rendered moot and all claims are believed to be in condition for allowance. Notice thereof is respectfully requested.


Respectfully submitted,

Joseph T. Guy, Ph.D.
Agent for Applicants
Client No.: 46591

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